



## ABSTRACT

ABUNDANT EXTRACELLULAR PRODUCTS AND  
METHODS FOR THEIR PRODUCTION AND USE

Vaccines based on one or more combinations of majorly abundant extracellular products of pathogens and methods 5 for their use and production are presented. The most prevalent or majorly abundant extracellular products of a target pathogen are selected irrespective of their absolute molecular immunogenicity and used as vaccines to stimulate a protective immune response in mammalian hosts 10 against subsequent infection by the target pathogen. The majorly abundant extracellular products may be characterized and distinguished by their respective N-terminal amino acid, amino acid, or DNA sequences. As the vaccines may comprise different combinations of the extracellular 15 products, subunits thereof, or encoding nucleic acids, a broad range of effective immunotherapeutic compositions are provided by the present invention. In addition to other infectious agents, the vaccines so produced can be used to stimulate an effective immune response against 20 intracellular pathogens and in particular *Mycobacterium tuberculosis*.

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